



Dear Customer,

Thank you for choosing the Oregon Scientific ATC2K.

Designed and engineered with extreme precision,
the Oregon Scientific ATC2K allows you to record cool action movie footage.

We recommend parents assist their children when using their
Oregon Scientific ATC2K. This manual uses technical
information to allow you to achieve the best results.

Some children may require your guidance setting up,
learning and understanding how to use the different features of the ATC2K.

Oregon Scientific ATC2K

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I) Quick Start

Turning the Camera On

Press and hold the On/Off Button for 2 seconds (two beeping sounds). The LCD screen will show the remaining time.

Taking Video Footage

1. Aim at what you want to record.
2. Press and hold the 'Movie shutter button' for 2 seconds to start recording (one beeping sound). The time elapsed will be shown on the LCD screen.
3. Press and hold the 'Movie shutter button' again for 2 seconds to stop recording (two beeping sounds). The length of the video footage will show on the LCD screen for 2 seconds, after which the remaining time will be shown (the remaining time is an estimate only).

II) Camera Precautions

Notice the following guidelines when using your camera

- The ATC2K is shock resistant, not shock proof.
- For your safety, do not press the buttons on the camera during sports activities.
- Do not place the camera in areas prone to dust or damp for extended periods of time. This may cause a fire or an electrical shock.
- Do not leave the camera in places exposed to extremely high temperatures, such as under direct sunlight, for extended periods of time. This may affect the camera housing and internal components.
- Clean the lens with a soft cloth to remove fingerprints or dust.
- We recommend using Alkaline batteries in temperatures between 32°F to 104°F (0°C

to 40°C).

- The working temperature range of a normal Alkaline AA battery is 32°F to 104°F (0°C to 40°C). Above or below this temperature may cause the batteries to malfunction, therefore for use in low temperature, we recommend changing to Lithium batteries.
- Turn the camera off before removing the batteries or memory card. The card and the data may be damaged if the memory card is inserted or removed while the camera is still on.
- Remove the batteries and memory card before storing the camera for long periods of time. Keep it in a well-ventilated place to prevent mould.
- Under the following circumstances, have the camera repaired by qualified personnel:
 - a) The plug is damaged or worn.
 - b) The device has been dropped and/or the housing has been damaged.
 - c) Liquid has entered the camera.

Disclaimer: Oregon Scientific will not, under any circumstances, be responsible for injuries or property damage incurred during participation of any high-risk sport/activity not endorsed or recommended by Oregon Scientific. Should the camera malfunction under these circumstances, it would not be covered by the warranty. The warranty will cover manufacturing defects.

Notes on copyright: Users are asked to note that the transfer of memory containing photos or data protected under copyright laws is only permissible within the restrictions imposed. Users assume all responsibility in the event that copyrights are violated by the use of this camera.

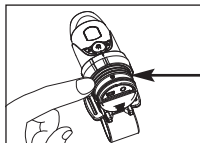
Waterproof Feature

The ATC2K camera is waterproof up to 3m (10ft). Oregon Scientific will not assume any responsibility for camera malfunction caused by liquid entering the camera as a result of misuse by the user.

Precaution:

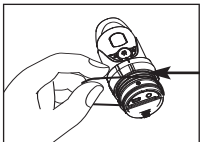
Follow the steps below to keep the camera waterproof.

Step 1: Apply silicon grease (included).



Take out the o-rings and use your fingers to gently rub on a thin layer of silicon grease onto the surface of the o-rings. The silicon grease needs to be applied on the o-rings evenly.

Step 2: Ensure both o-rings are attached.



Both o-rings need silicon grease applied to them. Follow the instructions in Step 1.

Step 3: Replace the cover.



Make sure the cover is firmly closed.

Liquid may get inside the camera if the battery cover is not firmly closed

- If the camera gets wet, wipe the liquid off as soon as possible with a dry cloth.
- Other camera accessories may not be waterproof.
- Ensure the o-rings are clean and have silicon grease applied before use underwater or in wet conditions.

Using the camera in cold weather

- We recommend using Energizer e2 lithium batteries in cold weather.

Don't use the camera in extreme temperatures as this may cause the camera to malfunction.**Attention:**

- Non-rechargeable batteries are not to be recharged;
- Rechargeable batteries are to be removed from the camera before being charged;
- Rechargeable batteries are only to be charged under adult supervision;
- The supply terminals are not to be short-circuited;
- Exhausted batteries are to be removed from the camera.

III) Technical Specifications

- Sensor resolution 640x480 VGA CMOS sensor
- Built-in memory 32MB
- SD memory card drive supports cards of up to 2GB (not included)
- Movie storage:
 - 640 x 480 pixels (30* frames per second)
 - 320 x 240 pixels (30* frames per second)
- Status LCD 2-digit B/W
- Focusing range 3m~infinity
- Movie images AVI
- File format of Interface USB (1.1)
- Delete image All / last one
- Auto Shut-Off 30 minutes
- Battery 2 x 1.5V AA alkaline batteries (not included)
- Dimensions 40mm diam. x 110mm length
- Operation system Win 2000/XP/Vista and Apple Mac X 10.4 and 10.3

IV) Computer System Requirements

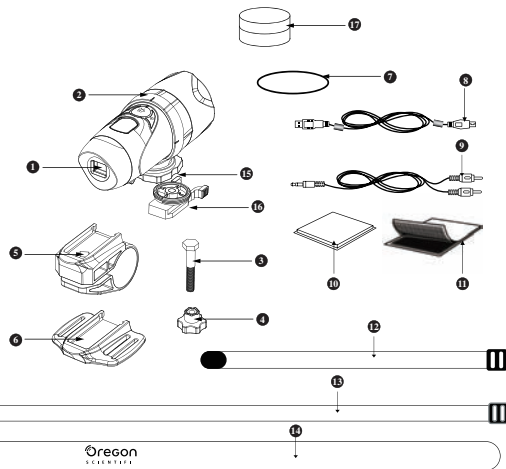
Minimum System Requirements

- Pentium III 800 MHz or higher
- Windows 2000, Windows XP, Windows Vista and Apple Mac X 10.4 and 10.3
- 128 MB RAM
- 800 MB Free hard disk space
- SVGA 800 x 600 resolution video support (32 bit)
- 16 bit Windows compatible sound device

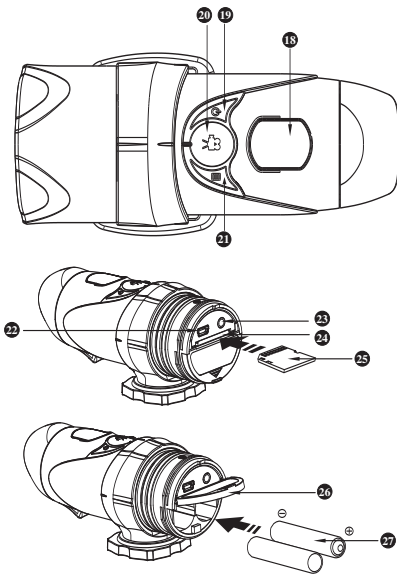
* In some cases, the frame rate may be automatically reduced to maximize the memory usage.

V) Camera Description

1. Lens
2. Camera grip
3. Screw
4. Nut
5. Handlebar grip
6. Helmet grip
7. O-ring
8. USB cable
9. AV cable
10. Rubberized patch
11. Velcro patch
12. Short velcro strap
13. Long velcro strap
14. Silicon rubber head strap
15. Bolt
16. Mount lock and tripod mount



17. Silicon grease container
18. LCD screen
19. ON/OFF
20. Movie shutter button & Confirm button
21. Menu button & Select button
22. Mini-USB port
23. AV port
24. SD card slot
25. SD card (not included)
26. Battery door
27. Batteries (not included)
28. Carry Bag



VI) Camera Mounting Description

The camera can be mounted in a number of ways using the straps and the velcro patch provided. Please follow the methods of mounting as suggested below:

Fixing the position of the camera

- With the base of the camera facing you, turn the clip clockwise to tighten its position.
- With the base of the camera facing you, turn the clip counter clockwise to loosen its position.



Note: Use caution when twisting; the clip may be sharp.

Mounting the camera onto a helmet using the silicon rubber strap:

- Attach the rubberized patch to the bottom of the helmet mount grip.
- +3. Thread the silicon rubber strap through the helmet grip.
- Mount the helmet grip to the helmet using the silicon rubber strap.
- Slide the camera into the helmet mount grip.
- Adjust the angle of the camera making sure it's secure.
- To avoid damage to the camera, the mount lock at the base must be loosened before twisting the camera.



#1



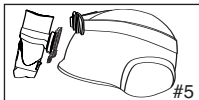
#2



#3



#4



#5



#6

Mounting the camera using the velcro strap:

- Attach the rubber patch to the bottom of the helmet grip.
- +3. Place the helmet grip on the helmet, and thread the velcro strap through the helmet grip.
- Secure the velcro strap by fastening it through the helmet vents.
- Slide the camera into the helmet mount grip, and adjust the angle of the camera making sure it is secure.



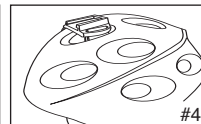
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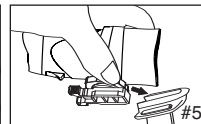
#2



#3



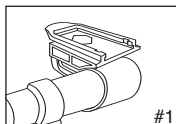
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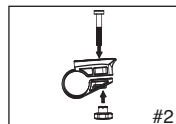
#5

Mounting the camera using the handlebar grip:

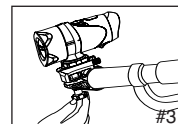
- Place the handlebar grip on the handlebar.
- Add the screw and nut to hold the handlebar grip securely.
- Slide the camera into the handlebar grip and make sure the handlebar grip is locked with the camera.
- Adjust the angle of the camera.



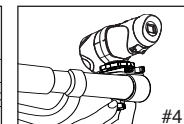
#1



#2



#3



#4

VII) Camera Usage

Battery Installation

⚠ Use Caution, the edge of the base clip may be sharp.

When unscrewing the cover make sure the clip is in the same direction as the lens. Observe the following precautions when unscrewing the cover of the camera:

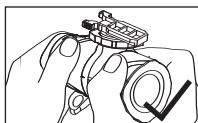
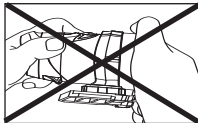
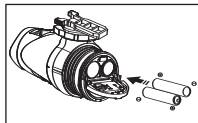
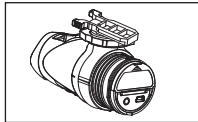
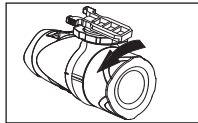
1. Unscrew the cover at the end of the unit.
2. Place your finger on the 'lip', which is on the bottom half of the rear of the unit, and pull in an upward direction to open the battery slot door.
3. Insert 2 x AA alkaline batteries into the battery slot with the polarity in the direction as shown.
4. Close the battery slot door and screw on the end of unit cover.

Note: When the battery is low, the low battery icon will appear on the LCD screen.

Always upload video footage to your PC prior to replacing batteries to avoid memory loss


Note:

- a) Do not mix old and new batteries together. Replace both batteries at the same time.
- b) Remove the batteries if the camera is not going to be used for extended periods of time.

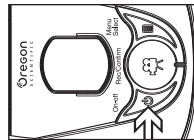


- c) Do not mix alkaline, standard (carbon-zinc) or rechargeable (nickel-cadmium) batteries. Only batteries of the same or equivalent type as recommended are to be used together.


Turning the Camera On

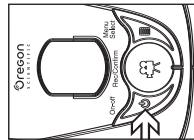
Press and hold the On/Off Button  for 2 seconds (two beeping sounds). The LCD screen will show the remaining time.

For your safety, do not press any buttons on the camera during sports activities.



Turning the Camera Off

1. Press and hold the On/Off Button  for 2 seconds (two beeping sounds). The LCD screen will turn off.
2. The camera will be turned off automatically after 30 minutes of not being used unless it is in USB mode.




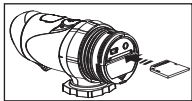
Note: If the camera is connected to your PC, you have to unplug the USB cable to turn the camera off.

Note: Ensure that the ATC2K is turned off during the insertion or the removal of the SD card. The card and the data may be damaged if the SD card is inserted or removed while the camera is on.


SD card insertion/removal

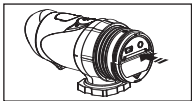
Insert:

1. Turn the ATC2K off .
2. Unscrew the cover at the end of the unit.
3. Turn the SD card upside down (connect terminals facing up) then insert it carefully and completely until it clicks in place.
4. Screw the cover back onto the end of the unit.



Remove:






1. Turn the ATC2K off .
2. Unscrew the cover at the end of the unit.
3. Push the card until it clicks, then pull the card out.
4. Screw the cover back onto the end of the unit.

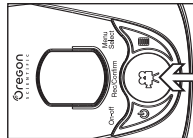


Note:

- a. Ensure the card is inserted correctly.
- b. Do not touch the connect terminals on the back of the SD card.
- c. The connect terminals should be facing the same way as the LCD screen.
- d. The card may be damaged if it is not fully inserted.
- e. The card and the data may be damaged if the SD card is inserted or removed while the camera is on.

Taking Video Footage






1. Aim at what you want to record.
2. Press and hold the 'Movie shutter button'  for 2 seconds to start recording (one beeping sound). The time elapsed will be shown on the LCD screen.
3. Press and hold the 'Movie shutter button'  again for 2 seconds to stop recording (two beeping sounds). The length of the video footage will show on the LCD screen for 2 seconds, after which the remaining time will be shown (the remaining time is an estimate only).
4. Press the Menu button  to select the desired resolution (640 x 480, 320 x 240). Press the Menu button  again to shift through the icons representing these resolutions (at the top of the LCD screen), as described on page 15. The icons will flash until you press Confirm  to verify your selection.

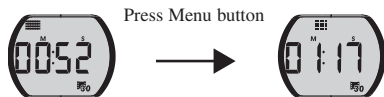
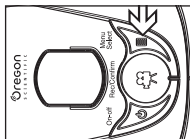


Note:











1. Default resolution is 640 x 480 (VGA).
2. When the time is shown, you will see 'H' for hour, 'M' for minute, and 'S' for second.
3. If the recording time is long, the video file may be separated into two files automatically. The user does not need to monitor this process, the camera will resume filming once the file is saved (after a couple of seconds). Please note that the time duration needed to save video files may vary depending upon the length of the file. Please be patient during this process.

VIII) Menu Settings

1. Press and hold the Menu button  for 2 seconds (one beeping sound) to start selecting options.
2. You can shift through different shooting modes by pressing the Menu button  repeatedly. The LCD will show each mode as you press the Menu button .
3. Press the 'Confirm' button  to confirm the selection (one beeping sound).
4. When you want to exit the Menu Selection mode, shift through the icons by pressing the Menu button  repeatedly until the selected icon stops flashing. Alternatively you can hold Menu down for 2 seconds. This will exit menu mode.









5. The different mode icons are shown in the table below.

Icon	Title	Description
	High resolution (640x480 pixels)	Large video format/ less storage capability
	Medium resolution (320x240 pixels)	Medium video format
	Privacy mode	Disables button sounds
	Sound	Sound recording
	Delete the last video footage	Erases the last video footage taken
	Delete all video footage	Erases all video footage stored in the camera or SD memory card
	Date and Time	Set the date and time
	30 frames per second	The frame rate of video footage is 30 frames per second
	Low battery	Battery is low
	SD card	SD card is inserted in the camera

Resolution

640 x 480, 320 x 240 pixels resolution



To change the resolution, press the Menu button  until the desired resolution icon is displayed on the LCD screen. Press the 'Confirm' button  to confirm your selection.


This camera allows you to choose from two video resolutions:
 640 x 480 and  320 x 240. High resolution video footage has better quality because it has more pixels. Lower resolution has fewer pixels but enables the user to record for a longer period of time.
The duration of video footage your camera can take depends on the resolution you choose. To switch between high resolution and medium resolution, press the Menu button  until the LCD screen shows the correct icon. Press the 'Confirm' button  to confirm your selection.

Privacy Mode



This mode allows the user to disable the sound features.

The privacy icon **P** will be flashing and the current mode it is in will not be shown.


Press 'Menu'  to go onto the next menu mode – Sound Recording.
Or, press 'Confirm'  to enter the privacy mode.

Once inside the Privacy Mode **P**, the **P** icon will continue to flash and ON will be displayed. If you select Confirm  this will disable the sound but still record the audio. If you select OFF, this will turn the Privacy Mode **P** OFF and enable the sound features while still recording the audio.



When in privacy mode option, pressing 'Menu' will change between ON and OFF. This will be looping. You must confirm one of the choices to move onto the next menu mode.

Item		Picture size	fps
VGA		640 X 480 pixel	30
QVGA		320 X 240 pixel	30

Sound Recording




Once you have entered this mode the icon will keep flashing and “LO” will be shown on screen. “LO” means sound is being recorded during filming. Press the 'Menu button'  (one beeping sound) to switch to “OFF”, which means no sound will be recorded.



After “OFF”, it will loop back to “HI” when 'Menu'  is pressed again. Press the 'Confirm' button  (one beeping sound) to confirm the setting and to go to the next function icon.






Deleting video footage

To delete the last video footage that was recorded, press the Menu button  until the LCD screen shows . Press the Confirm button  to confirm.

Repeat these two steps to individually delete your files.



Note: After file deletion, the LCD screen will adjust the remaining number of files accordingly.

Delete All Video Footage







To delete all video footage stored in your camera, press the Menu button  until the LCD screen shows . Press the Confirm button  to verify.

Note: It may take a few minutes to delete multiple files at one time.

Setting Date/Time (Clock Set)



Shift to the Date icon in the Menu mode by pressing the Menu button  repeatedly. When the Date icon is flashing, press the 'Confirm' button  to change the date and time.

Setting the Year

1. Press the 'Menu button'  to adjust the last digit of the year (2000-2009).
Press the 'Confirm' button  to verify the last digit.
2. Press the 'Menu button'  to adjust the 3rd digit of the year (200X-209X).
Pressing 'Confirm'  will then move the cursor to allow you to adjust the 3rd digit of the year. Press the 'Menu' button  to select the number and the 'Confirm' button  to verify, after which you will be able to adjust the month.






Setting the Month




When adjusting the month, the “M” will be shown. Press the 'Menu button'  to adjust the month. Press the 'Confirm' button  to verify, and proceed to setting the date.





Setting the Date

When adjusting the date, the “D” will be shown. Press the 'Menu' button  to adjust the date. Press the 'Confirm' button  to verify, after which you would be able to proceed to setting the time. 

Setting the Time

When adjusting the hour, the “H” will be shown. Press the 'Menu' button  to adjust the hour. Press the 'Confirm' button  to verify the hour, after which you would be able to proceed to setting the minute. 

When adjusting the minute, the “M” will be shown. Press the 'Menu' button  to adjust the minute. Press the 'Confirm' button  to verify the time and exit this mode.

SD Memory Card

In this unit, you can use SD Memory Cards of up to 2GB.
To use an SD memory card, turn off the ATC2K and insert the SD memory card. When the camera is turned on again the SD card icon will be displayed on the LCD screen.
The remaining time on the SD card will also be displayed on the LCD screen. All of the video footage will now be saved onto the SD card.

Note:

1. If there is an error on the SD memory card, the SD card icon and the letters 'Err' will be displayed on the LCD screen. In this case, turn off the camera and remove the SD card.
2. The SD card is equipped with a Write-Protect switch that can prevent writing and formatting to the card. The letters 'Err' will be displayed if the SD card is locked with Write-Protect switch.
3. We recommend using SanDisk regular or AData SD cards.
4. With use on Windows 2000 users must format to FAT otherwise the SD card and camera may malfunction.

Available Recording Time

The available recording time is an approximation (these vary depending on the recording conditions and the type of card).

Picture quality setting		VGA 30 fps	QVGA 30 fps
Internal Memory	32 MB	51 s	1 min 36 s
SD Memory Card	1 GB	30 min	57 min
	2 GB	60 min	114 min

IX) Connecting to a computer

You can upload your recorded video footage to a PC by connecting the ATC2K to the PC. Connect your camera to your PC using the USB cable.

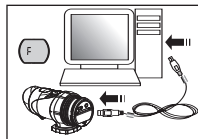
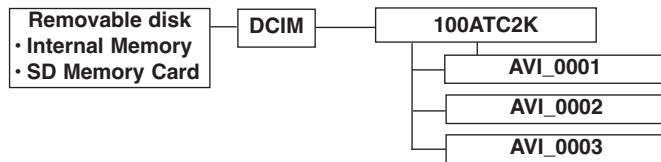
1. Turn the ATC2K on.
2. Connect the ATC2K to a PC via the USB cable.
3. "F" appears on the ATC2K LCD screen, which means ATC2K is connected to your PC.

4. The ATC2K drive appears in the [My Computer] folder.










*If you are connecting the camera to a PC for the first time, the required driver is installed automatically so that the camera can be recognized by Windows Plug and Play. The 100ATC2K drive then appears on the [My Computer] folder.

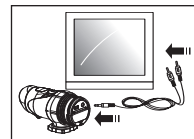
5. Open the '100ATC2K' folder in the [DCIM] folder to start selecting your desired video files. Copy the desired video to your PC.

• Folder Composition:



X) Playing back video footage on a TV

1. Turn the ATC2K and TV off.
2. Connect your ATC2K to your TV using the AV cable.
3. Turn the TV and ATC2K on.
4. AV will be displayed on the LCD screen.
5. "AV" appears on the ATC2K screen. TV mode is automatically activated when the AV cable is connected to the ATC2K. Once the cable is connected, the function keys will be shown on the TV screen. The function keys include Pause , Stop , Scan Back , Play , Scan Forward  and Delete One .
6. Press the Menu button  to move the highlight cursor along the function keys.
7. Press the Confirm button  when the desired function key is highlighted.
8. To delete one file, select the Delete-One icon and confirm by pressing the Confirm button .



XI) Troubleshooting

There's no display

- Are the batteries properly installed?
- Do the batteries need replacing?

After the ATC2K is connected to my PC, it cannot find the new drive in the, 'My Computer' folder

- Ensure each end of the ATC2K USB cable is properly and firmly connected.
- Ensure your USB port is working properly. Try connecting another USB device into the port. If the other device does not work, the USB port may have a malfunction. In this case, contact your system manufacturer or the manufacturer of your USB card.

I can't capture video footage

- Ensure there is enough space on the internal memory of ATC2K or the SD card; the display will tell you how much time there is left for video recording.
- Ensure the SD card is not locked. The letters “Err” will be displayed if the SD card is locked.

The remaining time is not accurate

- The remaining time is an estimate.
- The remaining time depends not only on the time recorded, but on the color density of the video footage. Under conditions with high contrast,

such as outdoors, the actual time available will be less than under low-contrast conditions, such as indoors.

I can't play the video footage on my television

- Ensure each end of the AV cable is properly and firmly connected to ATC2K and to your television.
- Ensure the ATC2K and television are both turned on.

Some captured video footage cannot be found when SD card is inserted

- The video footage may be stored on the internal memory. Connect the ATC2K to your PC without an SD card, and it will show the files in the internal memory

The sound is very low or there is no sound

- Ensure the audio is on by following the instructions in the Sound Recording section.
- The ATC2K is specifically designed for extreme sports and is waterproof, it is for this reason that we have made the microphone less sensitive.

Further Help

We make every effort to ensure the accuracy and appropriateness of the information provided on our products. We encourage you to contact our Technical Support Team at atc@oregonscientific.com with any problems and/or suggestions, or, visit our website for further Customer Service details at: <http://www2.oregonscientific.com/service/default.asp>. Our service representatives will be happy to help you.

Please note that the Technical Support Team cannot issue or authorize any RMA's or replacements.



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This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

WARNING:

Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio TV technician for help.

"This Class B digital apparatus complies with Canadian ICES-003."

"Cet appareil numérique de la class B est conforme à la norme NMB-003 du Canada"

"This unit has passed EN60065:2002 Performance Test for Vibration."

"This unit is has passed JIS7 Standard for Waterproof Test."